



AFB-0014

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Lynn P. Nelles )  
 ) Group Art Unit:  
 ) 1761  
SERIAL NO.: 09/993,048 )  
 )  
FILED: 11/13/2001 ) Before the  
Examiner: )  
 ) Leslie A. Wong  
FOR: TREATMENT OF VEGETABLE OILS )  
OR ANIMAL FATS WITH SULFUR OR )  
NITROGEN DONOR COMPOUNDS FOR )  
ANIMAL FOOD FLAVORINGS )

Via Facsimile (703) 872-9306  
Assistant Commissioner for Patents  
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**DECLARATION UNDER 37 CFR 1.132**

Dr. Chi-Tang Ho declares and says that:

1. I have read the above-referenced U.S. patent application serial number 10/178,909, herein referred to as "the application".
2. I graduated from Washington University in St. Louis with a Ph.D. Degree in Chemistry in 1974. From 1978 to present I have been a Professor in Food Science at Rutgers University. I have greater than 25 years experience as a flavor chemist.
3. I have reviewed the Office Action dated June 26, 2005, and references U.S. Patent No. 5,079,017 to Chen et al. (hereinafter "Chen"), U.S. Patent No. 4,267,195 to Boudreau et al. (hereinafter "Boudreau") and U.S. Patent No. 6,312,746 to Paluch et al. (hereinafter "Paluch").

4. The claims of the pending application relate to palatability enhancers for animal food. U.S. Patent No. 5,079,017 to Chen et al. (hereinafter "Chen") describes flavors that are suitable for use in humans and does not describe the use of the disclosed flavor in an animal food. It is well-known in the art of palatants for animal foods that flavorants that are appealing to humans are not necessarily appealing to animals. This is particularly true of complex flavors such as the reaction flavor of Chen.

5. It is well-accepted in the scientific community that the genes and receptors as well as the taste perception in dogs and cats, for example, differ from humans.

6. Acceptance of a human flavor can be readily established by an individual or by a panel of expert tasters.

6. Pet food flavors and palatability enhancers, in contrast, should have aroma, taste and mouthfeel that are acceptable to the dogs and cats. This acceptance should be determined for a panel of animals by the keen observations of a scientist trained in that skill. A flavor composition for an animal food should improve acceptance and/or consumption by the animal in a statistically significant manner. Flavor compositions for pet foods should also be of nutritional value because animals have the natural ability to reject food which may be harmful to their well-being by the smell of the food. Because of the sensitivity of animals to negative palatants, flavor compositions for pet foods should be substantially free from negative palatants. Also, advantageously, flavor compositions for animal foods, particularly dry foods, should be stable under low water activity since they may be utilized in a low pH (e.g., pH 3.0 or lower), stored and applied at relatively high (e.g., 120°F) temperatures.

7. Without testing, it is not possible to predict whether a flavor composition that has been employed for humans will be successful for animals. Chen et al. do not test their flavor compositions on animals and thus it is not possible to know, from the disclosure of Chen, if the flavor compositions are suitable for use on animal foods. The flavor compositions of Chen may not be effective on an animal food, particularly a dry animal food such as a kibble. The disclosure of a flavorant for human food as in Chen does not

render obvious the use of a palatant for animal foods.

8. Further regarding Chen, Chen teaches the use of flavors that are produced by reaction of fat and, for example, cysteine at temperatures of 300°C to 475°C. At these temperatures, cysteine would react to produce a reaction product. The flavors of Chen are clearly not cysteine itself, but a chemically distinct reaction product formed between cysteine and fat. The reaction product will have a distinctly different flavor/aroma from either the fat or the cysteine.

9. The Examiner relies on Boudreau for the teaching of flavors in animal foods and combines the teaching of Boudreau with Chen. Boudreau, in contrast to Chen, teaches the use of cysteine in an animal food. One of skill in the art of flavor science would not use a reaction product of cysteine and fat to replace cysteine. Cysteine and its reaction products with fat are chemically distinct and thus produce distinctly different flavors and/or aromas. The disclosure of cysteine as suitable for use in an animal food does not provide the motivation to use a reaction product of cysteine and fat. Neither reference teaches that a reaction product as described in Chen is palatable to an animal. Thus, reading the disclosures of Chen and Boudreau, a flavor chemist would not utilize the reaction flavor of Chen in an animal food such as in Boudreau in the absence of data showing that the reaction flavor is palatable to the target animal.

10. The Examiner further combines Chen and Boudreau with Paluch. Paluch is directed to a pet food which may comprise ingredients such as a hydrolyzed animal digest. Paluch, however, does not describe the combination of a reaction flavor and a hydrolyzed animal digest as claimed in the present application. There is no suggestion in these references that a combination of a reaction flavor of fat and cysteine with a hydrolyzed animal digest would be palatable to an animal. As explained previously, in the absence of animal testing, it is not possible to predict if a flavor would be appealing to an animal. Further, combinations of flavors may have synergistic or antagonistic effects. Without proper animal testing, it is not possible to know if a combination of flavors is palatable to an animal. Without testing, one of skill in the art would not combine the

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reaction flavor of Chen with an animal digest as in Paluch.

11. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.

Date: Aug 23 2005

Chi-Tang Ho  
Dr. Chi-Tang Ho